

OWNER'S  
MANUAL

# *Directed* AUDIO<sup>®</sup>

models

SX525  
SX570  
SX650  
SX690

## **CONGRATULATIONS**

Congratulations for choosing a Directed SX neodymium component speaker system from Directed Electronics.

Directed Electronics has been the industry leader in high-quality automotive security and audio equipment since 1990, and with the introduction of the Directed SX line of high-quality loudspeakers for the automobile, Directed continues to set new standards of performance, reliability, and affordability in the mobile electronics industry.

Featuring silk dome tweeters, a shallow injection molded basket with metallized polypropylene vacuum-formed cones and neodymium motors, the Directed SX line of automotive speakers will excite and delight the auto sound enthusiast with years of high quality audio reproduction.

Directed SX speakers are covered by a two-year limited warranty. Be sure to retain your original sales receipt, and refer to the warranty section of this guide for full details about your coverage.

## **TABLE OF CONTENTS**

Congratulations .....	2
Limited Two-year Consumer Warranty .....	3
Features .....	4
Warning .....	4
Sound Quality .....	4
Wire Connector Plugs .....	4
Installation Precautions .....	5
Specifications .....	7

## **LIMITED TWO-YEAR CONSUMER WARRANTY**

Directed Electronics, Inc. promises to the original purchaser, to replace this product should it prove to be defective in workmanship or material under normal use, for a period of two years from the date of purchase from the dealer as indicated by the date code marking of the product PROVIDED the product was installed by an authorized Directed dealer. During this two-year period, there will be no charge for this replacement PROVIDED the unit is returned to DEI, shipping pre-paid. If the unit is installed by anyone other than an authorized Directed dealer, the warranty period will be one year from the date of purchase by the dealer as indicated by the date code marking of the product. This warranty is non-transferable and does not apply to any unit that has been modified or used in a manner contrary to its intended purpose, and does not cover damage to the unit caused by installation or removal of the unit. During this one-year period, there will be no charge for this replacement PROVIDED the unit is returned to DEI, shipping pre-paid. This warranty is void if the product has been damaged by accident or unreasonable use, neglect, improper service or other causes not arising out of defects in materials or construction. Units which are found to be damaged by abuse resulting in thermally damaged voice coils are not covered by this warranty but may be replaced at the absolute/sole discretion of DEI. ALL WARRANTIES INCLUDING BUT NOT LIMITED TO EXPRESS WARRANTY, IMPLIED WARRANTY, WARRANTY OF

MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, AND WARRANTY OF NON-INFRINGEMENT OF INTELLECTUAL PROPERTY ARE EXPRESSLY EXCLUDED TO THE MAXIMUM EXTENT ALLOWED BY LAW, AND DEI NEITHER ASSUMES NOR AUTHORIZES ANY PERSON TO ASSUME FOR IT ANY LIABILITY IN CONNECTION WITH THE SALE OF THE PRODUCT. DEI HAS ABSOLUTELY NO LIABILITY FOR ANY AND ALL ACTS OF THIRD PARTIES INCLUDING ITS AUTHORIZED DEALERS OR INSTALLERS. Unit must be returned to DEI, postage pre-paid, with bill of sale or other dated proof of purchase bearing the following information: consumer's name, telephone number, and address, authorized dealer's name and address, and product description. Note: This warranty does not cover labor costs for the removal and reinstallation of the unit. IN ORDER FOR THIS WARRANTY TO BE VALID, YOUR UNIT MUST BE SHIPPED WITH PROOF OF INSTALLATION BY AN AUTHORIZED DEI DEALER. ALL UNITS RECEIVED BY DEI FOR WARRANTY REPAIR WITHOUT PROOF OF DEI DEALER INSTALLATION WILL BE COVERED BY THE LIMITED 1 YEAR PARTS AND LABOR WARRANTY. Note: This warranty does not cover labor costs for the removal and reinstallation of the unit. BY PURCHASING THIS PRODUCT, THE CONSUMER AGREES AND CONSENTS THAT ALL DISPUTES BETWEEN THE CONSUMER AND Directed SHALL BE RESOLVED IN ACCORDANCE WITH CALIFORNIA LAWS IN SAN DIEGO COUNTY, CALIFORNIA.

## **FEATURES**

### **Woofers**

- Low resonate mineral-filled vacuum-formed polypropylene cone
- Fiberglass-reinforced injection-molded basket.
- High-grade neodymium motor structure for higher efficiency.

### **Tweeter**

- New hotter 19mm ferrofluid cooled silk dome tweeter with neodymium magnet (6x9 25mm).

### **Crossover**

- 6 dB/octave passive crossover with tweeter protection.

## **WARNING**



High-powered car audio systems may produce sound pressure levels that exceed the threshold at which hearing loss may result.

They may also impair a driver's ability to hear traffic sounds or emergency vehicles. Use common sense and practice safe listening habits when listening to or adjusting your audio system.

## **SOUND QUALITY**

Obtaining the highest quality sound reproduction in the mobile environment requires installation techniques and knowledge of vehicle interiors that go far beyond simple replacement of stock speakers. Speaker location, orientation, phasing, and the vehicles interior materials are important considerations when

designing and installing an auto sound system.

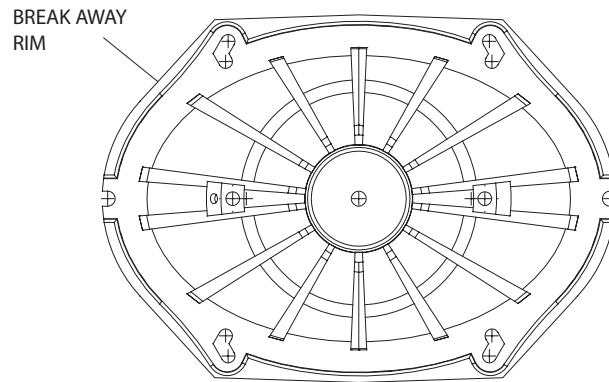
To achieve the best sound quality possible from your Directed Audio loudspeakers, Directed recommends the installation be performed by an MECP certified technician.

## **INSTALLATION PRECAUTIONS**

The Directed SX neodymium separates are designed for installation into factory speaker locations, custom mounting enclosures or any flat mounting surface inside the vehicle with sufficient rear clearance. The following precautions and instructions cover the basic and most common types of installation.

- Check behind panels for clearance of metal brackets, hoses, and wire harnesses before making any cuts.
- When mounting speakers into doors, roll the window up and down to check clearance of the glass and window regulator.
- Make sure the mounting holes are the correct size for the speaker. Undersized holes can cause speaker distortion or shorting of the speaker leads to the chassis ground. Oversized holes will not allow the mounting screws to make sufficient contact with the panel, allowing the speaker to become loose.
- Always protect the wires when routing by avoiding sharp metal edges, moving parts such as heater or vent controls, clutch pedals, brake pedals, steering columns, and power window motors and gears.
- When routing wires through metal panels and doorjamb always use vinyl tubing and grommets for protection and a professional-looking installation.

**FIGURE 6—CONNECTION/ADJUSTMENT SINGLE AMPLIFIER**



The model SX570 speaker has a break away rim to facilitate mounting as either a 6 X 8 or a 5 X 7 speaker. The mounting size required varies depending on the vehicle manufacturer.

Break away the plastic using a pair of pliers. Use care not to damage the speaker cone or tweeter.

The excess flashing left after removal of the rim may require clean-up.

## **SPECIFICATIONS**

<b>Model</b>	<b>SX525</b>	<b>SX570</b>	<b>SX650</b>	<b>SX690</b>
<b>System</b>				
Frequency response	80Hz–21kHz	80Hz–21kHz	75Hz–21kHz	60Hz–21kHz
Power handling RMS	40 watts	40 watts	50 watts	60 watts
Power handling peak	80 watts	80 watts	100 watts	120 watts
Impedance	4 Ohms	4 Ohms	4 Ohms	4 Ohms
Magnet weight	30.2 g	30.2 g	30.2 g	40.5 g
Vas	3.4L	5.4L	7.3L	16.6L
Fs	80 Hz	80 Hz	75 Hz	60 Hz
Qts	0.53	0.64	0.63	0.66
Efficiency (1W/1M)	88dB	88dB	89dB	89dB
Mounting depth	1.75"	2"	1.8"	2.5"
Mounting hole diameter	5"	5"x7"	5.66"	8-7/8"x6"
<b>Common Driver Specifications</b>				
Magnet type	Neodymium	Neodymium	Neodymium	Neodymium
Magnet diameter	25mm (1")	25mm (1")	25mm (1")	31mm (1.25")
Voice coil former	Kapton	Kapton	Kapton	Kapton
Voice coil diameter	1"	1"	1"	1"
Voice coil layers	4	4	4	4
<b>Tweeter</b>				
Size	19mm (3/4")	19mm (3/4")	19mm (3/4")	25mm (1")
Fs	1.9kHz	1.9kHz	1.9kHz	2.1kHz
Efficiency (1W/1M)	91dB	91dB	91dB	92dB
<b>Crossover</b>				
	6 dB/octave with tweeter protection	6 dB/octave with tweeter protection	6 dB/octave with tweeter protection	6 dB/octave with tweeter protection

# Directed AUDIO



Quality Directed products are sold and serviced throughout North America and around the world  
Call 800 274 0200 for more information about our products and services

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